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File Code: 3400 **Date:** August 27, 2002
Route To:

Subject: LSC-02-02, Pest Management Concerns for Campgrounds in the Hayman Fire Area

To: Forest Supervisor, Pike and San Isabel National Forests

On July 24-25, 2002, Jeff Witcosky, entomologist with Forest Health Management (FHM), visited a number of campgrounds and picnic areas in and adjacent to the Hayman fire area on the Pikes Peak, South Park, and South Platte ranger districts. The purpose of the visit was to determine whether there were any significant pest management concerns in the campgrounds that should be addressed during the restoration efforts undertaken by forest staff over then next several years.

The following campgrounds and picnic areas were examined for hazard tree and bark beetle problems:

Pikes Peak Ranger District: Colorado, Manitou Lake, Painted Rocks, Pike Community, Red Rocks, South Meadows, Trail Creek, and Wildhorn;

South Park Ranger District: Happy Meadows and Spruce Grove;

South Platte Ranger District: Big Turkey, Goose Creek, Kelsey, Lone Rock, Molly Gulch, and Wigwam.

Over the short-term (6–9 months) there appear to be a few problems the district staff may want to examine and attend to during their early restoration efforts. These problems concern trees that were injured or killed by fire and now pose a hazard for the forest staff and the public visiting these areas. The campgrounds of concern include Big Turkey, Goose Creek, Molly Gulch, Trail Creek, Wigwam, and Wildhorn. District staff can contact our forest pathologist, Kelly Sullivan (303-236-8006), to schedule a visit to these campgrounds to identify hazard trees that should be marked for removal. Bark beetles, like the mountain pine beetle, Ips beetles, or the Douglas-fir beetle, do not appear to pose a problem in the short term. Those trees that were killed outright by the fire probably will not serve as suitable breeding material for bark beetles. Also, there is little evidence that bark beetles are attacking the trees that survived the fire but sustained fire injury. These injured trees may or may not be infested by bark beetles to a significant extent over the remainder of this year. However, a number of these fire-injured trees will be infested and killed by woodborers over the next year or two.

Over the intermediate term (1–4 years) bark beetles pose a significant risk for trees in your picnic areas and campgrounds if beetle numbers increase significantly in the fire-injured trees. If beetle populations attack, infest, and breed in the surviving, fire-injured trees over the next 1–2 years,

their numbers may increase to such an extent that the beetles may begin to attack and kill healthy trees in your developed areas.

Attached is a brief report on the current status of hazard tree and pest problems for the campgrounds listed above. The report provides some general information on beetle problems and procedures for managing beetle impacts in the event a pest problem develops.

A copy of the publication entitled "Survivability and Deterioration of Fire-Injured Trees in the Northern Rocky Mountains: A Review of the Literature" is included for your information. This report was prepared by Forest Health Protection in Region 1 and provides a good discussion of the literature regarding fire injury and tree survival and deterioration. Also, copies of two handbills on "How to Identify Douglas-fir and Ponderosa Pine Which Will Survive Fire Damage" provide some general guidelines for identifying trees likely to die following fire injury.

Over the long term we recommend that your staff prepare vegetation management plans for your recreation areas. Forest Health Management is in the process of preparing a guide for vegetation management for recreation areas and will distribute the guide to the field units once it has been printed.

If you have any questions or need assistance, please contact Jeff Witcosky (303-236-9541).

/s/ Frank J Cross (FOR)
MARISUE HILLIARD
Director, Renewable Resources

cc: Randy Hickenbottom, Sara Mayben, Bill Nelson

Hayman Fire Area Pest Management Survey of Developed Recreation Areas

Pikes Peak Ranger District:

Colorado – No obvious pest problems; dwarf mistletoe not abundant. A few mountain pine beetle-infested trees were visible on the ridge to the west (background). There are no beetle-infested trees in the foreground.

Manitou Lake Picnic Grounds – No obvious pest problems; dwarf mistletoe not abundant. A few mountain pine beetle-infested trees were visible on the ridge to the west (background). There are no beetle-infested trees in the foreground. One ponderosa pine (18 – 20 inches dbh) was under attack from mountain pine beetle. Located on south fork of picnic area, on east side of the road across from small parking lot just north of the log structure.

Painted Rocks – No obvious pest problems; dwarf mistletoe not abundant. A few mountain pine beetle-infested trees were visible on the ridge to the west (background). There are no beetle-infested trees in the foreground.

Pike Community Group Camp – No obvious pest problems; dwarf mistletoe not abundant. A few mountain pine beetle-infested trees were visible on the ridge to the west (background). There are no beetle-infested trees in the foreground.

Red Rocks Group Camp – No obvious pest problems; dwarf mistletoe not abundant.

South Meadows – No obvious pest problems; dwarf mistletoe not present. A few mountain pine beetle-infested trees were visible on the ridge to the west (background). There are no beetle-infested trees in the foreground.

Trail Creek – This campground was burnt in foreground and the background with many killed and damaged trees. There is some fire injury on northwest side of campground across the creek from the parking area. Here, there are three campsites with a number of severely burned ponderosa pine and narrowleaf cottonwood. The campsites on the southeast side of the creek, adjacent to the road, do not have any problems, with the exception of a hazard spruce with considerable carpenter ant activity adjacent to a picnic table. Otherwise, there are no obvious pest problems.

Wildhorn – The area is burned in the foreground and background. There is some fire injury along the edge of the campground. There are some hazard trees remaining in the campground, including some trees severely injured by fire and a few other hazard tree problems. There are no obvious pest problems at this time.

South Park Ranger District:

Happy Meadows – Fire burned to east side of river but not into campground; there are dead and damaged ponderosa pine trees across the river from the campground. The campground does not have any noticeable pest problems. There are no pines in the campground, just a few small spruce trees.

Spruce Grove – No pest problems evident in the campground.

South Platte Ranger District:

Big Turkey – This area was burned both in the foreground and background. There are some severely burned trees on the edge and adjacent to the campground. There are no obvious pest problems at the present time. There is little or no dwarf mistletoe in the campground.

Goose Creek – There has been some recent cutting of spruce in the campground around several campsites. Eight to ten trees at south end of campground, at one campsite, were killed by the fire and need to be removed. Many trees in the foreground and background have been killed or damaged by fire. There are no obvious pest problems in the campground at this time. There may be a hazard tree or two in the campground.

Kelsey – There are no obvious pest problems, however ponderosa pine dwarf mistletoe is present at a light level. One dead pine tree is visible near a campsite and one large pine next to a parking spur has a large dead top.

Lone Rock – There are no obvious pest problems in the campground.

Molly Gulch –Both the background and the foreground of this campground were burnt with many dead and injured trees. There are some severely fire-damaged trees in the campground. There are no obvious pest problems in the campground and dwarf mistletoe in not abundant.

Wigwam – This campground is burnt in the foreground, background, and along the north perimeter of the campsites. Several of the narrowleaf cottonwoods were severely damaged by the fire along the northern edge of the campground. There are several unburned cottonwoods that may be hazard trees in the center of the campground. Otherwise, there are no obvious pest problems.

Intermediate term pest management concerns for the developed sites in and adjacent to the Hayman fire area

In the aftermath of the Hayman fire, there is a strong likelihood over the next one to four years that bark beetles, particularly Ips beetles in ponderosa pine and Douglas-fir beetle in Douglas-fir, will infest and kill trees that survived the Hayman fire but were injured by the fire. Both of these bark beetles show a strong propensity to increase their numbers in injured trees and then emerge to attack and kill healthy, undamaged trees. Effort may be required by district staff to control bark beetles that infest fire-damaged trees near campgrounds to limit tree losses in these campgrounds.

District staff will need to monitor areas near campgrounds for evidence of beetle infestation in injured trees. If beetles infest injured trees the districts may need to take quick action to treat the infested trees. Ips beetles may complete several generations each year; these beetles can increase their numbers rapidly during a single summer. Generally, Douglas-fir beetles have a single generation per year and increase more slowly, but may develop more rapidly during unusually warm years.

Several pest management tactics are appropriate to manage bark beetle impacts:

1. Fell and cut infested trees into small pieces, pile areas receiving direct sun, and wrap the piles with plastic to kill the developing brood beetles.

2. Fell and peel the bark of infested trees with chainsaws to kill the developing beetle brood.

3. Fell the trees and remove them from the site.

4. Contract with pesticide applicators to apply protective insecticides to trees in the campgrounds to prevent beetles from attacking and killing these trees. This treatment is used only when beetles directly threaten these trees.

Funding for pest management activities may be requested through Forest Health Management's annual pest management project funding request process, which occurs in September. Once the Hayman Fire restoration plans are finalized and funded, monies also may become available for pest management actions like those described above.

Assistance for pest management actions may be requested by contacting Jeff Witcosky at 303-236-9541.